



SS2003M

Schottky Barrier Diode 30V, 2.0A, Low VF, Single MCPH6

ON Semiconductor®

<http://onsemi.com>

Applications

- High frequency rectification (switching regulators, converters, choppers)
- Halogen free compliance

Features

- Small Switching noise
- Low forward voltage ($I_F=2A$, $V_F \text{ max}=0.40V$)
- Small package permitting applied sets to be small and slim

Specifications

Absolute Maximum Ratings at $T_a=25^\circ C$

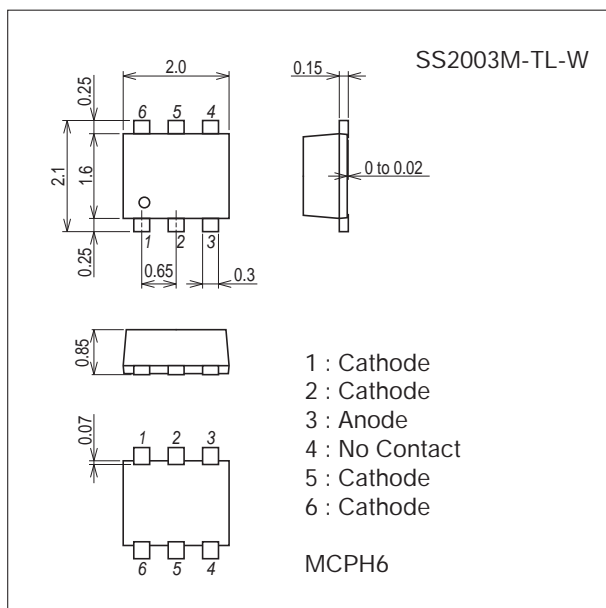
Parameter	Symbol	Conditions	Ratings	Unit
Repetitive Peak Reverse Voltage	V_{RRM}		30	V
Nonrepetitive Peak Reverse Surge Voltage	V_{RSM}		30	V
Average Output Current	I_O		2.0	A
Surge Forward Current	I_{FSM}	50Hz sine wave, 1 cycle	10	A
Junction Temperature	T_j		-55 to +125	$^\circ C$
Storage Temperature	T_{stg}		-55 to +125	$^\circ C$

Stresses exceeding Maximum Ratings may damage the device. Maximum Ratings are stress ratings only. Functional operation above the Recommended Operating Conditions is not implied. Extended exposure to stresses above the Recommended Operating Conditions may affect device reliability.

Package Dimensions

unit : mm (typ)

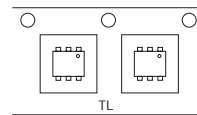
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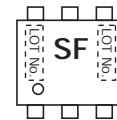
Ordering & Package Information

Device	Package	Shipping	memo
SS2003M-TL-W	MCPH6 SC-88, SC-70-6, SOT-363	3,000 pcs./reel	Pb-Free and Halogen Free

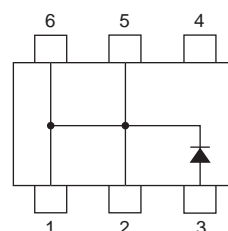
Packing Type : TL



Marking



Electrical Connection

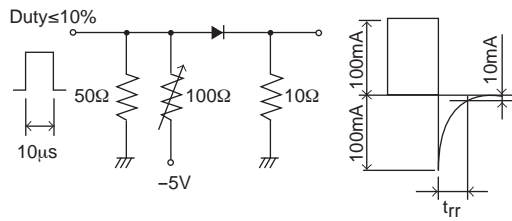


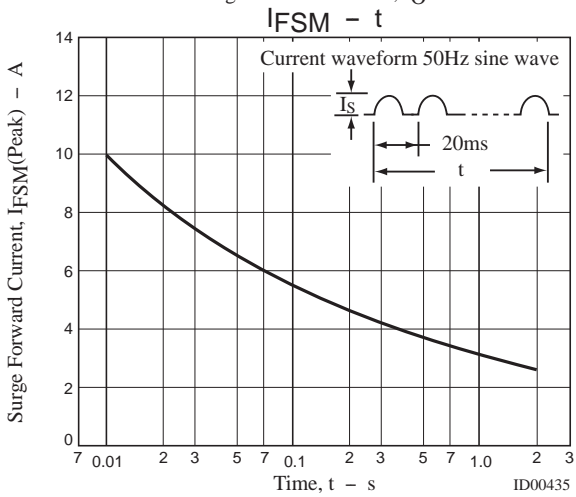
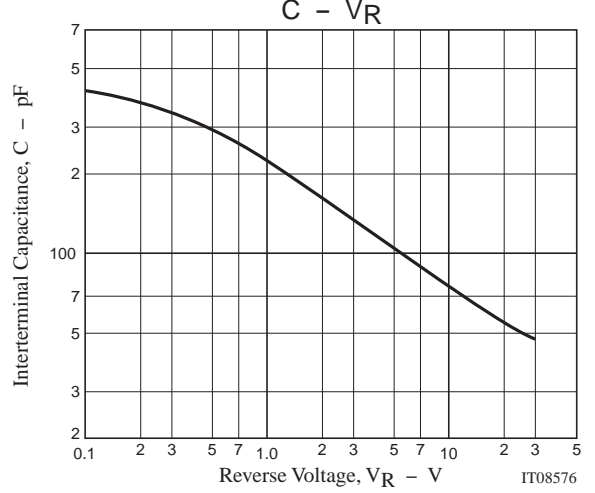
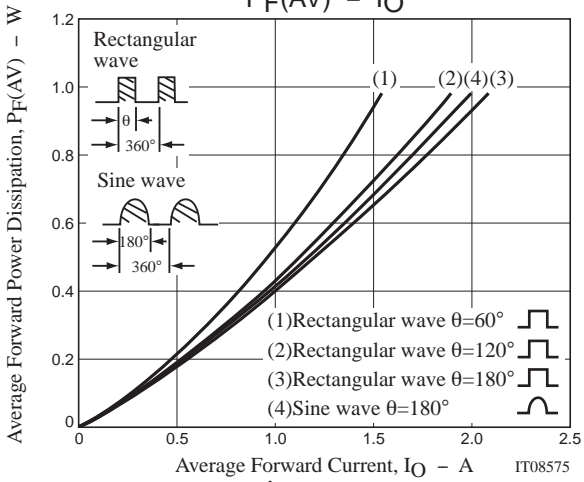
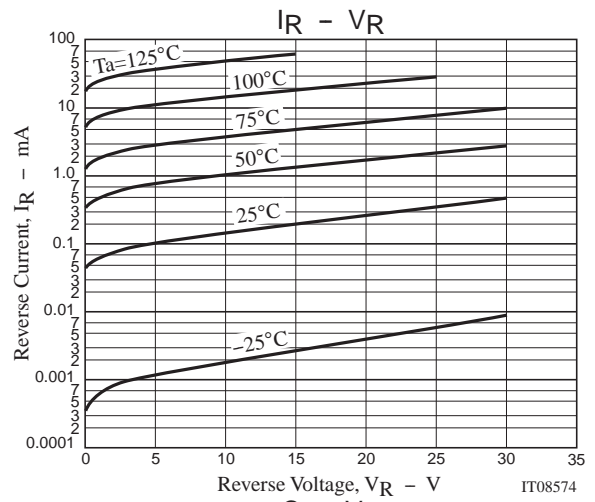
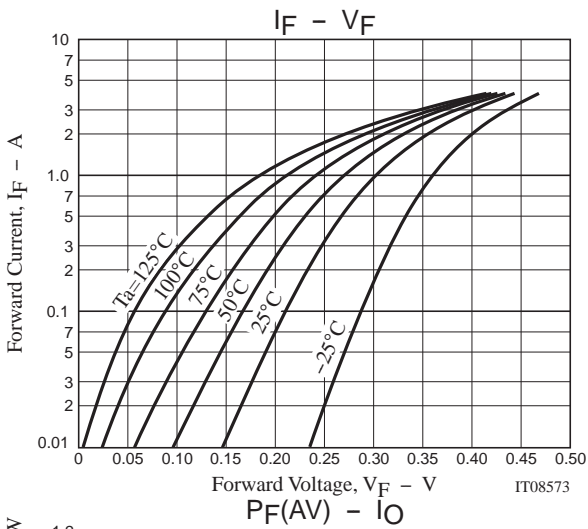
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Electrical Characteristics at $T_a=25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Reverse Voltage	V_R	$I_R=2.0\text{mA}$	30			V
Forward Voltage	V_F	$I_F=1.0\text{A}$		0.30	0.35	V
		$I_F=2.0\text{A}$		0.35	0.40	V
Reverse Current	I_R	$V_R=15\text{V}$			1.25	mA
Interterminal Capacitance	C	$V_R=10\text{V}$, $f=1\text{MHz}$		75		pF
Reverse Recovery Time	t_{rr}	$I_F=I_R=100\text{mA}$, See specified Test Circuit.			20	ns
Thermal Resistance	$R_{th(j-a)1}$	When mounted in Cu-foiled area of $1.44\text{mm}^2 \times 0.03\text{mm}$ on glass epoxy substrate		93.4		$^\circ\text{C} / \text{W}$
	$R_{th(j-a)2}$	When mounted on ceramic substrate ($500\text{mm}^2 \times 0.8\text{mm}$)		71.4		$^\circ\text{C} / \text{W}$

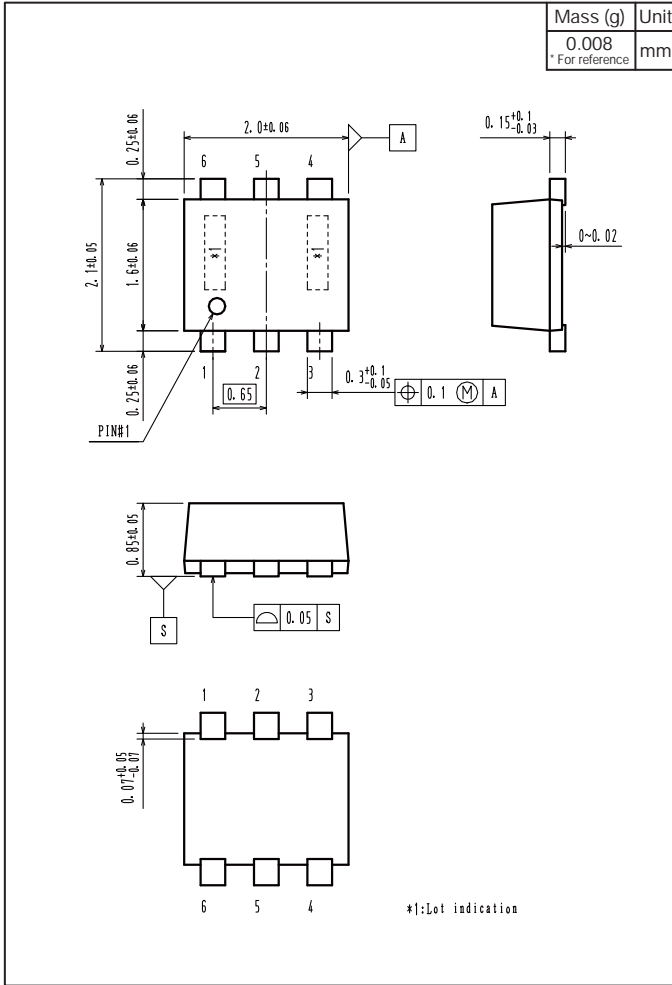
t_{rr} Test Circuit



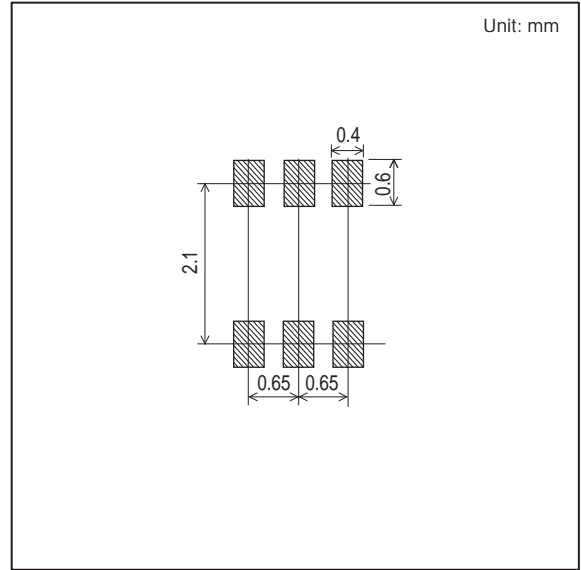


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Outline Drawing SS2003M-TL-W



Land Pattern Example



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